

What is claimed is:

1. An apparatus for pulling a single crystal, comprising:

a crucible charged with a melt, a heater located around the crucible and an auxiliary heating device including a heating section which can be located so as to surround a seed crystal in a position near above the melt and a transfer mechanism for withdrawing the heating section from a passing area of a single crystal, wherein:

a covering section to cover a clearance between the heating section and the seed crystal is extended from the heating section.

2. An apparatus for pulling a single crystal according to Claim 1, wherein the covering section functions as a heat insulating section or a heating section.

3. An apparatus for pulling a single crystal according to Claim 1, wherein the covering section has a first opening for allowing the seed crystal to pass through, the diameter of the first opening being set within the range of 1.25-3.0 times the diameter of the seed crystal.

4. An apparatus for pulling a single crystal according to Claim 1, wherein both the heating section and the covering section have a second opening for withdrawing from a passing area of the seed crystal, the width of the second opening being set within the range of 1.25-3.0 times the diameter of the seed crystal.

5. An apparatus for pulling a single crystal, comprising:

a crucible charged with a melt, a heater located around the crucible and an auxiliary heating device including a heating section which can be located so as to surround a seed crystal in a position near above the melt and a transfer mechanism for withdrawing the heating section from a passing area of a single crystal, wherein:

the heating section is constructed of a vertically lower area and a vertically upper area having different heating strengths from each other, the heating strength of the vertically lower area being made higher than the heating strength of the vertically upper area.

6. An apparatus for pulling a single crystal according to Claim 5, wherein the ratio of the heating strength of the vertically upper area to the heating strength of the vertically lower area is set within the range of 1: 2.0-5.0.

7. A method for pulling a single crystal using the apparatus for pulling a single crystal according to Claim 5, wherein:

a heating power of the heating section is set within the range of 30- 80% of the heating power (hereinafter, referred to as the seed melt power) which enables melting of the surface of the front portion of a seed crystal when the seed crystal is dipped into the melt so as to form a neck.